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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,841	10/30/2003	Douglas Rene Johnson	16318-US	9136

7590 09/22/2004

W. Michael Dixon
DEERE & COMPANY
Patent Department
One John Deere Place
Moline, IL 61265-8098

EXAMINER


LUM VANNUCCI, LEE SIN YEE

ART UNIT	PAPER NUMBER
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3611

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/696,841	Applicant(s) JOHNSON, DOUGLAS RENE	
	Examiner Lee Lum	Art Unit 3611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The disclosure is objected to because in Claim 1, "primary steering system", and in Claim 8, "sump", lack antecedent basis.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15 and 17-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Claims 15 and 17, "in a normal way" is unclear.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

A. Claims 1-19 and 21 (15 and 17 as best understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over Satzler 5857532 in view of Ohms et al 3877537.

Re **Claims 1-10, 12 and 15-18** (15 and 17 as best understood), Satzler discloses a backup steering system for a track-laying vehicle (col 2, lines 62-63) comprising

Pump 14, accumulator 84, and check valve 82 connected between the two,

Main solenoid valve 66 connected to the pump, sump 39, and brake pedals (fig 1),

Pair of solenoid valves 78/80 connected to steering input device 26, pump, sump, and brake pedals (unidentified in fig 1),

Left and right brakes 74/76 connected to the main valve,

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Wherein

During normal operation, the brakes are simultaneously actuated in response to operator-induced braking (inherent),

During an emergency operation, the brakes are selectively actuated (col 6, second complete paragraph), via hydraulic signal or sensors (both in col 6, last two paragraphs).

The reference does not disclose a mode control valve, while Ohms shows this hydro-mechanical element 68, as discussed in col 3, lines 8-40. The control valve is connected with main valve 24, and brake valve 48 in fig 1. It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this feature, as shown in Ohms, to provide a manual, and fail-safe, means by which the emergency steering system may be actuated, thus increase safety and comfort in such an event.

Re Claim 11, Ohms' mode control valve is mechanical, but It would have been obvious to one with ordinary skill in the art at the time the invention was made to include an electrically-actuated device, such as a solenoid, to provide another type of very well-known valve for the application. Since the valves in Satzler are solenoids, it would be obvious to include a mode control valve that is also a solenoid to decrease design costs, and to simplify the system.

Re Claim 13, Ohms discloses the mode control valve as actuated via hydraulic signals in a second embodiment, col 4, last paragraph. It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this feature, as shown in Ohms, to provide automatic emergency steering without an operator input, so to ensure safety in the event the steering system fails.

Re Claim 14, Satzler discloses sensors in col 6, last two paragraphs, to automatically make a mode change.

Re Claim 21, Satzler discloses the accumulator as providing fluid pressure in case of pump failure in col 6, lines 20-23.

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B. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Satzler in view of Ohms, and in further view of Ryan 6527070.

The previous references do not disclose an alternator or battery as alternate electrical sources, while Ryan shows these elements in col 71, lines 55-57. It would have been obvious to one with ordinary skill in the art at the time the invention was made to include these sources, as shown in Ryan, to provide redundancy with respect to electrical inputs, thus increase safety in case of failure of any one source.


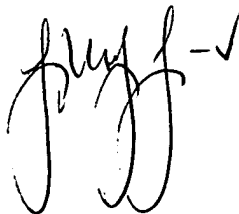
4. The prior art made of record, and not relied upon, is considered pertinent to the disclosure: Toms 6216806, Sulu 6039133, Gustafson et al 6029761, Satzler 5975224, Coutant et al 4949823, Vatter et al 4702330, Koch 4037677, Blood et al 3603424.

5. Communication with USPTO/Examiner

Any inquiry concerning this communication, or others, should be directed to Ms. Lum at 703 305-0232, M-F, 9-6. If attempts to reach the examiner are unsuccessful, her supervisor, Ms. Lesley Morris is at 703 308-0629. Our fax number is 703 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for unpublished applications: private PAIR only, for published applications: private or public PAIR. For more information re PAIR: <http://pair-direct.uspto.gov>.

Ms. Lee S. Lum
Examiner
9/17/04



LESLEY D. MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600